Increasing Inequality in British and U.S. Fatherhood Premia across the Earnings Distribution, 1974-2010

Lynn Prince Cooke
Department of Social & Policy Sciences
University of Bath
Bath BA2 7AY UK
+44(0)1225 383 074
l.p.cooke@bath.co.uk

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Abstract

Parenthood creates a well-documented gendered economic divide, but less is known about its stratifying effects among men. Five waves of LIS data and regressions of the recentered influence function reveal changes since the 1970s in the impact of children at different percentiles of partnered British and U.S. men's earnings distributions. In 1974, all partnered British and U.S. fathers enjoyed some earnings premium, with the relative premia largest among the lowest-earning men. Premia at the median of men's earnings have not changed significantly over time, but the polarization of labor markets is evident in a cross-over of effects at other percentiles. By 2010, the lowest-earning fathers with three or more children incurred significant earnings penalties, with penalties greatest in the United Kingdom. In addition, the relative fatherhood premia for the highest-earning U.S. men increased significantly. We argue these patterns suggest that the profound structural changes in the labor market have simultaneously increased the importance of and altered fathers' relative bargaining power.

Keywords: Earnings inequality, parenthood, international comparisons

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The impact of parenthood on gender economic inequality is well-documented. Mothers generally experience some earnings penalties (Cooke, forthcoming; Harkness and Waldfogel 2003; Petersen, Penner, and Høgnes, forthcoming), whereas fathers often enjoy a modest but significant wage premium (Lundberg and Rose 2000, 2002; Petersen et al. 2011, forthcoming; Smith Koslowski 2011; Waldfogel 1998). Recent U.S. research reported that fatherhood premia are smaller for Black men (Glauber 2008; Hodges and Budig 2010), and larger for university-educated men in professional occupations (Hodges and Budig 2010). Cooke (forthcoming) further found that the relative fatherhood premia among Australian, British, and U.S. men are larger at higher percentiles of the earnings distribution. The economic benefits of being a virile heterosexual male therefore seem to vary with other characteristics such as ethnicity and socio-economic status.

To date, group differences in premia among men have been theorized to reflect intersections with gendered institutional arrangements. For example, Glauber (2008) claimed that group differences in fatherhood premia reflect group variation in men's benefits from a gendered division of household labor. Hodges and Budig (2010) suggested that premia are greatest when a man possesses the traits associated with the hegemonic form of masculinity, such as being White, married with a homemaker wife, university-educated, and in a professional occupation. Employers presumably favor these characteristics because they legitimate organizational hierarchies and systems of power (Hodges and Budig 2010; see also Acker 1990; Kanter 1979).

Gendered institutional arrangements undoubtedly account for some of the fatherhood premium that cannot be explained by individual characteristics, but we suggest they are less

useful in explaining differences among men. The evidence that household specialization increases fatherhood premia is inconsistent (Hodges and Budig 2010; Lundberg and Rose 2000; Smith Koslowski 2011). Furthermore, household divisions of paid and unpaid labor have blurred over the past 40 years. Wives' employment participation and hours have increased, their housework hours have decreased, and both parents now spend more time caring for children (Bianchi, Robinson, and Milkie, 2006; Cooke and Baxter 2010). To the extent specialization explains any fatherhood premium, the premium should be attenuating over time. Similarly, hegemonic masculinity is not a static, trait-based concept (Connell and Messerschmidt 2005). Gender relations evolve, and some governments and organizations actively support greater balance between family and employment for both men and women.

We instead suggest that premia in part reflect men's agency, with fatherhood an incentive to request further remuneration. Looking at such renegotiations from a bargaining perspective, stratification among fathers can be explained by differences in men's relative bargaining power (Blau 1964; Fisher and Ury 1981). Testing a bargaining hypothesis directly would require detailed longitudinal information on employer-employee dyads across men's skill levels, which we do not possess. Such negotiation data would also not allow us to logically rule out the competing gendered arguments. So we test our conjecture by looking at changes in British and U.S. fatherhood premia among men from the mid-1970s to 2010.

Since the 1970s, structural changes in the British and U.S. labor markets dismantled protections for lower-wage workers and increased demand for high-skilled workers at the top of the earnings distribution (Autor, Levy, and Murnane 2003; Machin 2010; Mishel et al. 2012). Labor markets polarized, with strong growth in low- and high-wage occupations contrasting with declining employment shares in mid-wage occupations (Autor, Katz, and Kearney 2008; Goos,

Manning, and Salomons 2009; Kalleberg 2011). Bonds of reciprocity between workers and employers diminished, with employment becoming more precarious; collective power eroded and was replaced by greater emphasis on individual relationships (Kalleberg 2011).

We hypothesize that these trends result in concomitant changes in individual bargaining power among British and U.S. men at different points in the earnings distribution. When a high-earning man becomes a father, the steadily increasing returns to high skills suggest he is in an increasingly strong position to negotiate for even higher wages. In contrast, low-earning men who become fathers increasingly need the job to support their families, but are more readily replaced. Such fathers may even accept lower wages in exchange for some job security. This is possible only in the absence of collectively-bargained or government-mandated real wage floors, which have deteriorated in both countries (Machin 2010; Mishel et al. 2012).

If our conjecture is supported, fatherhood premia across the bottom half of men's earnings distribution should have decreased between 1974 and 2010, whereas fatherhood premia across the top half should have increased. We compare the United Kingdom and United States, as the inequality trends were similar (Gottschalk and Smeeding 1997; Machin 2010). If the premia patterns are similar, this further supports our hypothesis that differences among fathers relate to market changes. In contrast, were specialization to explain fatherhood premia, premia should have decreased across the period to reflect partnered British and U.S. women's greater employment, and partnered men's increase in unpaid housework and childcare.[1] We further anticipate that the premia patterns along the earnings distribution will persist even after controlling for being White

[1] Exploring the changing impact of household specialization on marriage and/or fatherhood premia is a worthy research project as well, but trying to combine the two over-time analyses in one paper proved infeasible.

and in a professional occupation that Hodges and Budig (2010) also used to define hegemonic masculinity.

The ability to compare fatherhood premia at different percentiles of men's unconditional earnings distribution, controlling for other covariates, has recently been made possible by advances in quantile regression techniques. Quantile regression is seldom seen in the sociology literature (Cooke, forthcoming; Killewald and Bearak, forthcoming). One reason for this limited use may be that the quantile regression estimator initially proposed by Koenker and Bassett (1978) provides estimates of effects of a covariate on the *conditional* wage distribution—conditional on any other variables included in the model. This sheds light on within-group differences in effects. But conditional estimates do not reveal between-group differences; individuals with the lowest relative earnings on the conditional distribution given the covariates (education, years of experience, work hours, etc.) may not be the same as those with lowest absolute earnings on the *unconditional* distribution (Koenker 2005: 48).

Firpo and his colleagues (2009) illustrate that unconditional quantile partial effects of a given characteristic such as fatherhood, controlling for any other covariates, can be estimated by using regressions of the (recentered) influence function (RIF). We therefore use five waves of LIS labor force data (1974, 1986, 1994, 2004, 2010) and RIF regressions to compare partnered British and U.S. fatherhood premia at different percentiles of men's unconditional earnings distribution in each year. As ordinary least squares (OLS) regression is used to estimate the RIF coefficients, *z*-tests can assess the significance of changes in fatherhood premia among partnered men over time. The comparisons reveal how the de-institutionalization and polarization of British and U.S. labor markets is reflected in growing disparities in fatherhood premia at different percentiles of men's earnings distributions.

EXPLAINING FATHERHOOD PREMIA

Family stratifies women and men via partnership as well as parenthood effects. Of interest here is the fatherhood premium, but men's largest family premium usually stems from marriage and, to a lesser extent cohabitation (Cohen 2002; Killewald and Gough 2013; Petersen, Penner, and Høgnes 2011).[2] Net of partnership, fatherhood often predicts a further premium for men (Hodges and Budig 2010; Killewald 2013; Lundberg and Rose 2000, 2002), the size of which differs across countries (Cooke, forthcoming; Petersen et al. 2011, forthcoming; Smith Koslowski 2011). Individual, couple, and institutional arguments have been used to explain family-related premia or penalties (for women as well as men), and the differences among men in these.

Potentially observable explanations include *selection* and *treatment* effects of family on men's earnings. Different types of men are likely to make family transitions (selection), and/or family transitions lead to a change in men's behavior that is rewarded by the labor market (treatment) (Petersen et al. 2011). Treatment effects are theorized to reflect in part men's employment advantage under the *specialization* of a gendered division of household labor (Becker 1985). Other theorized but often unmeasurable reasons for fatherhood premia unexplained by observable characteristics include cultural conceptions of fatherhood, and the related gender power relations reinforced at micro, interactional, and organizational levels by *discrimination* (Correll, Benard, and Paik 2007; Hodges and Budig 2010; Ridgeway and Correll 2004). We discuss each of these possible explanations for fatherhood premia and their applicable evidence in turn.

[2] Recent evidence suggests that some women now also enjoy a small partnership premium (Killewald 2013), but this varies across countries (Cooke 2011) and the earnings distribution (Cooke 2014).

Selection Effects

Men who become fathers may display other unmeasured characteristics such as loyalty or commitment that are rewarded by employers, indicating that men are positively selected into fatherhood (Coltrane 2004). With positive selection, OLS estimates of the daddy bonus would be larger than fixed-effects estimates. Such model comparisons, however, suggest U.S. men positively select into marriage, but not fatherhood (Lundberg and Rose 2002). Indeed, it is the U.S. men with less favorable labor market characteristics who are more likely to become fathers, as OLS-derived premia are smaller than those from fixed-effects models (Hodges and Budig 2010; Lundberg and Rose 2000, 2002). Analyzing the Panel Study of Income Dynamics (PSID), Lundberg and Rose (2000: 702) found that partnered U.S. men who became fathers earned less before the birth than non-fathers, although this relationship reversed at the time the first child was born. In a later analysis, the difference between the OLS and fixed-effects coefficients for fatherhood effects was smaller for men born after 1950 than it had been for the earlier cohort (Lundberg and Rose 2002). These differences hint that negative selection into U.S. fatherhood might be diminishing among more recent cohorts.

Selection effects also differ across countries. Smith Koslowski (2011) found no evidence of negative selection into fatherhood in the United Kingdom or any of the other 12 countries she analyzed using the European Community Household Panel data spanning the 1990s.[3] There was, however, evidence of positive selection into fatherhood in Denmark, Germany, and Greece (2011: 240). Petersen and his colleagues (2011, forthcoming) found that Norwegian men who ultimately partnered earned more in the years prior to marriage, but partnered men who would become

[3] Countries were Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Spain, and the United Kingdom.

fathers selected into lower-paying establishments. In that context, Norwegian fathers earned a small (0.5 to one percent) wage premium relative to non-fathers, as compared with the four percent wage premium Lundberg and Rose (2002) found for U.S. fathers. Petersen et al. (forthcoming) attributed the smaller Norwegian premium in part to the greater wage compression of that country's labor market.

Controlling for selection requires either panel data and fixed effects models, or a suitable instrument in cross-sectional data. Neither is available for the over-time analyses of British and U.S. fatherhood premia of interest here,[4] but this is a minor limitation given the research question. First, Smith Koslowski (2011) found no selection effects for British fathers, and Lundberg and Rose's (2002) analyses suggest negative selection into fatherhood for U.S. men is decreasing over time. Thus at worst, failure to control for possible negative selection results only in more conservative estimates of fatherhood premia. Second, much of men's family premium stems from partnership, not parenthood (Hodges and Budig 2010; Killewald 2013; Petersen et al. 2011), with higher-earning British and U.S. men more likely to partner (Bardasi and Taylor 2008; Lundberg and Rose 2002). By limiting the British and U.S. comparisons to partnered men, we balance the possibly conservative effects of failing to control for negative selection into fatherhood with the larger premia for positively-selected partnered men. Our results will therefore reveal inequality trends only among two-adult households, which generally are the most economically secure (McLanahan 2004).

[4] In a related analysis, we are using the PSID to assess specifically whether selection into U.S. fatherhood among men has changed since the 1970s. British data spanning the time period with suitable income information are limited.

Specialization

Some researchers argue that institutionalized inequalities associated with the gendered division of household paid and unpaid labor account for fatherhood premia. Becker (1981) held that having one person specialize in paid work while the other specializes in unpaid family maximizes household production and reproduction. Although in theory either partner might specialize in either type of work, Becker (1981) offered that women, given their biological role in reproduction, have a comparative advantage in unpaid family work. Wives' responsibility for unpaid work in turn supports husbands' time and effort in paid work (Becker 1985). A fatherhood premium might therefore reflect a mixture of fathers' greater time in paid work as compared with childless men, which is observable, and/or greater effort (i.e., the treatment effect of having a child), which is more difficult to ascertain.

There is some evidence that wives' greater time in housework increases British men's marriage premium (Bardasi and Taylor 2008), but we can find no evidence that couple divisions of housework in any country directly alter fatherhood premia. Childcare relates more directly to parenthood, and fathers' time with children has increased since the 1960s (Bianchi, Robinson, and Milkie 2006). British fathers' time in primary childcare increased from one hour per week in 1975 to almost seven hours per week in 2000 (Bianchi et al. 2006: 160). U.S. fathers' childcare time across the same time period increased from about 2.5 to just over four hours per week (2006: 160). Smith Koslowski (2011) reported no evidence that British (or any other European) fathers during the 1990s who spent more time caring for their children received lower wages. We cannot find comparable studies for the United States, but the increase in childcare time has been greatest among the most highly-educated U.S. as well as British fathers (Sullivan 2010: 725). Spending

less time in childcare would therefore not explain the greater fatherhood premium Hodges and Budig (2010) found for highly-educated U.S. men.

Couples' employment divisions explain more of the fatherhood premium, although evidence is mixed. In their fixed-effects analysis of PSID data, Lundberg and Rose (2000) found that husbands' work hours and wages increased when their wives exited the labor market following a birth. When a wife instead remained in the labor market after a birth, her husband's work hours decreased, but his wages still increased. Glauber (2008) suggested that group differences in household specialization account for group differences in the size of the fatherhood premium. For example, she argued that Black men in the 1979 National Longitudinal Survey of Youth (NLSY79) received smaller premia for three or more children because U.S. Black husbands' earnings advantage over their wives is smaller than White or Latino husbands'. Including a measure of wives' earnings to estimate specialization, however, did not alter the premia (Glauber 2008).

Analyzing the same data, Hodges and Budig (2010) assessed the impact of becoming a father on men's earnings. Using a measure of wives' work hours rather than earnings to test the specialization hypothesis, they reported that only Latino, not White or Black sole-breadwinning fathers, earned a further bonus. Killewald (2013) revealed that once controlling for family form in the NLSY79, neither ethnicity nor education were significant predictors of U.S. fatherhood premia.[5] Married men coresiding with their biological children enjoyed a four percent wage premium, which she attributed to such men's greater commitment to the economic fatherhood identity (Killewald 2013). The premium disappeared, however, when wives worked full-time.

[5] Killewald (2013) acknowledged that education and ethnicity predict family form. For example, Hodges and Budig (2010: 730) reported that only 46 percent of Black fathers were married, as compared with 70 percent of Latino, and 81 percent of White fathers.

These results would seem to support the specialization hypothesis, but Killewald referenced Smith Koslowski's (2011) European evidence to resist concluding this.

An over-time analysis of Norwegian data suggests fatherhood premia are robust to changes in household specialization. Norway, along with other Nordic countries, is at the vanguard of policy promotion of gender equality in paid and unpaid work (Cooke and Baxter 2010). Using matched employer-employee data from 1979 to 1996, Petersen and his colleagues (forthcoming) found that Norwegian mothers' earnings penalties essentially disappeared over time as more policy supports were implemented. Yet the significant albeit small fatherhood premium—and the larger gender wage gap—persisted over time.

In summary, specialization seldom explains fatherhood premia, or differences among men in these premia. Furthermore, British and U.S. household specialization has declined sharply since the 1970s (Bianchi et al. 2006; Sullivan 2010), with Petersen et al.'s (forthcoming) Norwegian findings indicating that the impact of de-specialization is more on motherhood penalties than fatherhood premia. Our data do not contain housework or childcare measures, but we compare models with and without a control for wives who are out of the labor force to confirm the minimal impact of specialization in paid work on fatherhood premia at each percentile of partnered men's earnings distributions.

Discrimination

Feminists argue that employers discriminate in favor of men generally and fathers in particular (Acker 1990; Kanter 1979; Ridgeway and Correll 2004). The discrimination may be statistical, in that with limited information about an individual's productivity, employers rely on their (correct or erroneous) perceptions of a group's average productivity in making employment offers (Arrow

1976). Research supports that employers differentiate based on ethnicity, criminal record, parental status, and social class when calling back or making job offers to applicants with otherwise identical résumés and characteristics (Correll et al. 2007; Pager 2003; Ridgeway and Correll 2004).

Empirical evidence of employer preferences for fathers is not strong. In an experimental design, Correll and her colleagues (2007) found that U.S. undergraduate evaluators of fictitious job applicants with identical education and experience rated those labeled as fathers more favorably in terms of hiring and suggested starting wages than applicants labeled as childless men. Then again, students' ratings of childless women were similarly positive (2007: 1316). Furthermore, actual employers in the complementary field audit were not significantly more likely to call back fathers than childless men (Correll et al. 2007). This contrasts with the significant criminal record and ethnic differences in employer callbacks reported by Pager (2003).

Hodges and Budig (2010) situated fatherhood premia within systems of power that reinforce gender difference at micro, interactional, and organizational levels (Acker 1990; Kanter 1979; Ridgeway and Correll 2004). Gender scholars contend that organizations construct a universal, ideal worker as a tough-minded, disembodied, analytical individual capable of making decisions unaffected by emotional or personal considerations (Acker 1990; Kanter 1979). Hodges and Budig (2010) in turn asserted that those workers who best exemplify the traits of the hegemonic ideal—White, married, virile, college-educated men in professional occupations and jobs demanding cognitive skills— not only receive larger organizational rewards, but that these traits intersect with fatherhood to further magnify the daddy bonus. Hodges and Budig (2010) therefore suggest that stratification among fathers reflects differences among men in hegemonic masculinity.

They tested their argument using NLSY79 data and fixed-effects models with interaction terms of premia and each of the characteristics signifying hegemony (Hodges and Budig 2010). Results only partially supported their hypothesis. Married, sole-breadwinning Latino fathers earned the largest percentage premium, and the Latino and White fatherhood premia for university-educated men were similar.[6] Analyzing the same data, Killewald (2013) found no ethnic or educational differences once controlling for the family form she alternatively argued indicates U.S. men's greater identity with the economic role of fatherhood.

A conceptual issue also plagues Hodges and Budig's (2010) argument. Hegemonic masculinity relates to "the pattern of practice … that allowed men's dominance over women to continue" (Connell and Messerschmidt 2005: 832). Economic advantage is hegemonic, but university education, professional occupations, and cognitive jobs have been readily pursued by increasing numbers of women (Connell and Messerschmidt 2005). Hegemonic masculinity therefore seems less useful for explaining differences in fatherhood premia among men. Instead, the concept would be better applied to explaining persistent "family gaps"—fatherhood premia as compared with motherhood penalties—regardless of women's educational and occupational attainment (i.e., Waldfogel 1998).

The impact of gendered institutional arrangements on fatherhood premia, and differences in this among men, is therefore equivocal. Focusing on institutional arguments also ignores men's agency in obtaining a fatherhood premium. Certainly, many employers would not know a man has become a father if he does not share this information. Qualitative evidence suggests that men are more likely than women to ask for what they want to accommodate new circumstances (Babcock and Laschever 2003). So we instead propose that seemingly unexplained premia reflect

[6] With ethnic differences in base wages, however, White fathers received more money.

fathers' successful wage renegotiations with employers. Under bargaining dynamics that structure such negotiations, premia differences among men reflect differences in their relative bargaining power.

BARGAINING POWER AND PREMIA

The outcomes of economic as well as social exchanges in unequal societies reflect power differences between actors (Blau 1964; Weber 1958). Relative power is determined by what each actor has that the other values, as well as their respective Best Alternative to a Negotiated Agreement (BATNA) (Fisher and Ury 1981; Pinkley, Neale, and Bennett 1994). Cultural conceptions of breadwinning fathers make it reasonable for men who become fathers or have further children to use this as a basis for a renegotiation of wages.

Acknowledging men's agency can account for the conflicting evidence regarding the impact of specialization on fatherhood premia. Fathers whose wives exit employment have the greatest incentive to bargain aggressively for higher wages. Thus Killewald (2013) found the highest premium for coresiding biological fathers with unemployed wives. When wives remain in employment, the incentive to bargain for higher wages may be lower, which would also explain why this premium disappeared when wives were employed full-time (Killewald 2013). Fathers in dual-earner couples instead have greater incentive to bargain for fewer working hours to participate more in childcare. This could account for Lundberg and Rose's (2000) finding that U.S. husbands with continuously-employed wives earned a slightly smaller hourly wage premium, but significantly decreased their work hours.[7]

[7] Killewald's (2013: 109) presentation of results makes it impossible to ascertain the direct connection between wives' employment and husbands' work hours for the coresiding biological group.

Men with more attributes valued by their employers and/or better BATNAs negotiate better agreements (Pinkley et al. 1994). Across father-employer negotiating dyads, variation in the size of the premium therefore reflects variation in fathers' skills vis-à-vis employers' labor demands. The importance of valued skills accounts for Hodges and Budig's (2010) finding that men in professional occupations and jobs requiring analytical skills received larger fatherhood bonuses. But negotiations do not occur within a socio-economic vacuum (Blau 1964). Earnings differences among men are smaller where there are more institutional supports for equality such as strong trade unions, centralized wage setting, or high government-mandated minimum wages (Blau and Kahn 1996; Immervoll 2007; Mishel et al. 2012; Petersen et al., forthcoming). The profound structural changes in the British and U.S. labor markets since the 1970s have increased not only earnings inequality among men, but also the importance of individualistic employment relationships and individual bargaining power (Kalleberg 2011: 84).

Changing Labor Markets, Changing Relative Power

From World War II into the 1970s, income inequality within affluent industrialized economies was fairly stable, although relative income equality differed across countries (Gottschalk and Smeeding 1997). Income inequality was greatest in the United States, followed a bit distantly by the United Kingdom (Blau and Kahn 1996: 794). After the 1974-1975 oil shocks, the confluence of globalization, technological change, growth of the service sector, government de-regulation of labor markets, and decline in union power increased returns to education, hollowed out employment shares in the middle of the wage distribution, and eroded wage floors (Kalleberg 2011; Goos et al. 2009; Gottschalk and Smeeding 1997; Machin 2010; Mishel et al. 2012). These

trends triggered increases in income inequality beginning in the United Kingdom and United States, the pattern of which differed somewhat across decades.

Returns to education in both countries began to rise sharply during the 1980s, and continued to increase at a slower pace in the subsequent decades (Gottschalk and Smeeding 1997; Machin 2010). Some economists credit technology with increasing returns to education, even as more young adults obtain higher levels of education (Autor et al. 2003; Lindley and Machin 2013). Yet computerization has also been blamed for the decrease in jobs in the middle of the earnings distribution (Autor et al. 2008; Machin 2010).

Along the bottom half of the earnings distribution, de-industrialization replaced good-wage unskilled manufacturing employment with low-wage service sector jobs (Kalleberg 2011; Mishel et al. 2012). Mishel and his colleagues (2012) estimated that the decrease in U.S. unionization from 43 percent of blue collar workers in 1978 to just over 19 percent in 2005, coupled with the drop in the value of the minimum wage, explains one-third of the growth in U.S. wage inequality. There are no comparable British data for the entire period, although de-unionization is credited with one-fifth of the growth of inequality during the 1980s (Machin 2010).

To enhance employer flexibility in increasingly competitive global markets, British and U.S. governments eased employment protections and the real value of minimum wages declined (Kalleberg 2011; Mishel et al. 2012). The United Kingdom introduced its first minimum wage in 1999, but it primarily reduced inequality among employed British women (Lindley and Machin 2013: 167). In 2000, the British minimum wage for full-time workers was just 32 percent of gross average wages, as compared with 39 percent in the United States (Immervoll 2007: 9). By

2004, minimum wages in both countries were 35 percent of gross average wages (Immervoll 2007).

Between 1974 and 2010, overall inequality as measured by the ratio of men's gross earnings at the 90th as compared with the 10th percentile increased by 42 percent in the United Kingdom and 50 percent in the United States.[8] Figure 1 illustrates how patterns of inequality within the distribution differed. Inequality in the top half of the distribution (90/50) increased throughout the entire period. In contrast, inequality across the bottom half of men's earnings distribution (50/10) slowed and then plateaued beginning in the mid-1980s in the United States and the mid-1990s in the United Kingdom (Machin 2010). Mishel and his colleagues (2012: 2) calculated that the real income of U.S. *households* in the bottom fifth grew just 6.1 percent across the period, as compared with 12 percent for the middle fifth, 70 percent for the top fifth, and 184 percent for those in the top percentile. The moderate growth for middle-income families was due largely to the increase in wives' labor force participation or work hours (Mishel et al. 2012). The stagnating wages of many British and U.S. men therefore fueled the employment de-specialization of couple households.

[Figure 1 about here]

Arne Kalleberg (2011) persuasively argued that the combined structural changes mark a fundamental shift in the social contract guiding employment relations, and increased the importance of individual power in negotiations with employers. The wide divide between today's "good" and "bad" jobs affects the relative bargaining power of the workers within each type of job (Kalleberg 2011). Skills are important, but do not perfectly predict earnings. For example, highly-educated professionals such as teachers do not necessarily enjoy the highest earnings.

[8] Based on data from OECD Stats (http://stats.oecd.org/); see also Figure 1.

There is also increasing variation in returns to education, as well as greater earnings variation within occupations (Autor et al. 2003; Kalleberg 2011; Western, Bloome, and Percheski 2008).

From these trends, we deduce two hypotheses relating to our bargaining model of fatherhood premia. First, controlling for education and occupation, we anticipate that differences in fatherhood premia across the earnings distribution have increased significantly between 1974 and 2010. Second, differences in the size of the premia among British and U.S. fathers will mirror the trends in inequality. Premia differences among fathers will be smallest in the 1970s. In each subsequent decade, premia will decrease along the bottom half of the earnings distribution, and increase along the top half.

METHOD

Data and Sample

The best available data for comparing British and U.S. men's earnings over the past forty years come from the LIS (formerly the Luxembourg Income Study) data project. LIS is the largest available database of harmonized microdata on market income, household- and person-level characteristics, and labor market outcomes collected from multiple countries over several decades. Five waves of LIS data are selected for the United Kingdom and United States, for the years 1974, 1986, 1994, 2004, and 2010. From each national dataset, we restrict the sample to men between the ages of 25 and 59 who earn more than US1974$1, excluding the self-employed, disabled, and those still in school. The self-employed are excluded as many have negative income because of accounting practices, so their earnings are not comparable to those of paid employees.

As noted earlier, LIS data contain no suitable instruments that predict fatherhood but not earnings. We therefore further limit the sample to partnered men, to maximize the potential

fatherhood premia (Killewald 2013; Lundberg and Rose 2000, 2002). The distinction between marriage and cohabitation is possible only in the 2004 and 2010 waves, but models for those years including married only did not differ substantially from the ones for all partnered men. To be consistent across years, we differentiate only partnered, not necessarily married men.

Analytical Technique

Much of what we know about the impact of children on earnings is based on comparisons of means using regression models that establish conditional relationships between earnings (*Y*) and a set of covariates (*X*). Here, in contrast, we are interested in the impact of children across partnered men's earnings distributions. As noted in the introduction, the semiparametric approach developed by Koenker and Bassett (1978) allows slope parameters to differ at each percentile of the conditional wage distribution to reveal within-group variation in the impact of an individual characteristic. Unconditional quantile partial effects (UQPE) can be estimated from this using OLS regression on a transformed dependent variable, the recentered influence function (RIF), which Firpo et al. (2009) define as:

$$RIF(Y; q_\tau, F_Y) = q_\tau + (t - \mathbf{1}\{Y \leq q_\tau\}) \,/\, f_Y(q_\tau)$$

In this equation, τ is a given quantile; q_τ is the value of the outcome variable, *Y*, at the τ^{th} sample quantile; $f_Y(q_\tau)$ is the density of *Y* at q_τ; and **1** is the indicator function. If we were interested in the effect of our independent variable at the median of the wage distribution (τ = .50), the median wage in the sample is then our q_τ. The density of the distribution estimated at the median wage is $f_Y(q_\tau)$. The indicator function $\mathbf{1}\{Y \leq q_\tau\}$ creates a dummy variable set to 1 if a given wage is below that quantile—in this case below the median wage in the sample. OLS regression on the

transformed dependent variable estimates the effect of the independent variable at the specified quantile of the unconditional wage distribution (Firpo et al. 2009).[9] The resulting RIF statistic is therefore interpreted as any OLS statistic, indicating the marginal effect of a unit increase in the explanatory variable of the τ^{th} quantile of the unconditional distribution of *Y*, holding everything else constant (Firpo et al. 2009). For each year and country, the *rifreg* command in Stata is run to estimate the UQPE of children at the 10^{th}, 25^{th}, 50^{th}, 75^{th}, and 90^{th} percentiles in the log annual earnings distribution.

Models and Variables

The dependent variable is the natural logarithm of gross annual earnings, equivalized and deflated to 1974 U.S. dollars as of 31 January of the survey year.[10] Annual earnings rather than hourly wages are used, as the national datasets contain information on usual weekly work hours (except UK1974), but not necessarily number of weeks worked. In addition, annual earnings incorporate periods of unemployment or variation in usual hours worked, the risk of which increasingly varies across the earnings distribution and in the different decades (Gottschalk and Smeeding 1997; Kalleberg 2011; Mishel et al. 2012). Annual earnings therefore provide a fuller picture of economic inequality among men than comparisons of hourly wages.

Depending on the year and country, the number of children ranges from 0 to 13. The fatherhood premium differs, and not necessarily linearly, depending on the number of children (Glauber 2008; Killewald 2013; Lundberg and Rose 2002), and the U.S. premium for a given parity has varied over time (Lundberg and Rose 2002; Waldfogel 1998). We therefore create a

[9] Other estimation procedures are also available (Firpo et al. 2009: 962).

[10] http://www.bls.gov/data/inflation_calculator.htm

series of indicator variables for exactly one child, exactly two children, and three or more children, against a referent of partnered men with no children. Information in the datasets is limited to residential children; whether they are biological, adopted, or stepchildren cannot be ascertained.

Two models are run for each country and year. The first model includes controls for human capital and labor supply. One indicator variable denotes men with a university degree or higher education, against a referent of less education. Educational attainment is not available in the 1974 British data. Age and its square (divided by 100) are included as a proxy of work experience (Mincer 1979). Controls for labor supply include usual weekly work hours and their square (except 1974 British data). The squared term is included as the relationship between work hours and earnings is not necessarily linear. Men who are not salaried can increase earnings by working more hours, whereas salaried men usually have no restrictions on work hours and would need to negotiate a higher salary. Following Petersen's (1989) recommendation of instead using the log of usual weekly work hours provided an increasingly poor fit to the data over time, particularly at the 10^{th} percentile where part-time work is more common.

The second model adds further controls for specialization and Hodges and Budig's (2010) hegemonic ideal, to assess whether their inclusion significantly alters fatherhood premia across partnered men's earnings distributions. Specialization is captured with an indicator variable for when the man's female partner is out of the labor force. Another indicator variable denotes men in professional occupations. As noted by Kalleberg (2010), not all professional occupations are found at the top of the earnings distribution. We create a final indicator for White respondents against a referent of all other ethnicities. Information on ethnicity is available in all U.S. datasets, but differentiating White British respondents is only possible beginning with the 1994 dataset.

RESULTS

The weighted descriptive statistics presented in Table 1 highlight country similarities and differences over time in both labor supply and demographics. From a much lower base in 1974, British partnered men's earnings increase steadily until 2004. The impact of the 2008 financial crisis seems to be more persistent in the United Kingdom, as British men's equivalized 2010 earnings are appreciably less than in 2004. The stagnation of U.S. earnings from their comparatively high 1974 levels is also apparent, although average U.S. earnings recovered more quickly post-crisis than in the United Kingdom. The British growth in earnings does not reflect working harder, as men's usual weekly work hours do not display any particular pattern across the decades, other than a small dip in 2010. In contrast, the U.S. averages suggest a slight increase over time in men's usual weekly work hours. In both countries, the percentage of men with a university degree increased 16 to 17 percentage points across the decades. About one-sixth of British and U.S. partnered men is in professional occupations, with the proportion fairly stable over time.

[Table 1 about here]

Household specialization declines in both countries across the period, most sharply among British couples. In 1974, 44 percent of British couples have a homemaker wife, as compared with 31 percent in the United States. By 2010, that proportion drops to about one-fifth in both countries. If specialization accounts for fatherhood premia, these patterns suggest the 1974 premia should be greater in the United Kingdom, and that premia in both countries should decrease over

time.[11] A similar percentage of British and U.S. couples has one or two children across the time period. The percentage with three or more children decreases over time, balanced by an increase in childless couples. Both countries are becoming more ethnically diverse. In 1974, 87 percent of the U.S. sample of partnered men is White; by 2010 that figure decreases to less than 70 percent. In the United Kingdom, Whites comprise 96 percent of the sample in 1994, but only 87 percent in 2010.

Table 2 displays the impact of exactly one, exactly two, and three or more children on partnered British and U.S. men's log of annual earnings at the 10^{th}, 25^{th}, 50^{th}, 75^{th}, and 90^{th} percentiles in each year. In the discussion of results, we exponentiate the coefficients ($100*(e^{b}-1)$) to interpret them the predicted percentage change in partnered fathers' annual earnings, as compared with childless partnered men at that percentile of the distribution. Because these are percentage effects, an effect of similar magnitude at the 10^{th} and 90^{th} percentiles of the earnings distribution has a larger absolute monetary impact for workers in the higher earnings quantile.

Comparing effects at the median (50^{th} percentile) provides insight into how average premia changed over time as wives' employment participation increased. In both countries, partnered men with average earnings and exactly two children enjoy the largest premium. In the United Kingdom, the two-child premia range from a low of seven percent in 1974, 1994, and 2004, to a high of nine percent in the remaining years. The U.S. premia display a bit more volatility. The premium is of a similar magnitude to the British two-child premium in 1974, 2004, and 2010, but does not reach statistical significance in 1986 or 1994. The minimal change in the size of the two-child premium between 1974 and 2010 for men with average earnings is

[11] The increase in partnered British women's employment has been more into part-time jobs than in the United States (Cooke 2011), so we refrain from making country hypotheses regarding de-specialization over time.

confirmed with a *z*-test (see Table A-1 in Appendix). Moreover, adding the controls for specialization, professional occupation, and being White does not substantially alter its size in either country or any year.

Changing premia among low-earning partnered men

As predicted, the differences in fatherhood premia among all partnered men in 1974 are relatively small. Premia for partnered British and U.S. men in the lower quartile with one or two children are in fact slightly greater than for higher-earning fathers. The absolute size of the U.S. premium at the 10^{th} percentile of earnings is almost twice as large as the British premium: about 17 percent as compared with a British premium of eight or nine percent. There is little difference in the size of premia predicted by the two models, even though the percentage of British and U.S. couples with a homemaker wife is largest in this year.

In contrast to the fairly constant premia for men at the median, however, the premia patterns for partnered men in the bottom of the earnings distribution display growing disadvantage over time. By 1986, the lowest-earning British and U.S. fathers no longer enjoy premia. Instead, those with either one, or three or more children are predicted to incur penalties, although these do not reach standard levels of statistical significance. In 1994, the fatherhood penalties for men with three or more children are larger than they were in 1986 and statistically significant in both countries. Penalties for three or more children at the 10^{th} and 25^{th} percentiles in the United States are much larger in Model 1, before controlling for specialization, professional occupation, and being White. The decrease in the penalties controlling for these characteristics is seven to eight percentage points. This suggests that low-earning U.S. ethnic minorities with working wives face larger penalties for large families than other low-earning partnered men. These results are

consistent with the NLSY79 evidence of no increase in premia for U.S. Black fathers with three or more children (Glauber 2008), and the further benefits of male breadwinning in Latino couples (Hodges and Budig 2010).

The U.S. penalties for low-earning men with large families ease somewhat in 2004 and 2010. The differences in predicted effects across the two models are also smaller. The lowest-earning U.S. men with one child in 2004 again enjoy significant premia of about seven percent, although the magnitude of this premium decreases and is no longer statistically significant in 2010. U.S. premia for men at the 10^{th} and 25^{th} percentiles with two children are three to four percent, but are not statistically significant at the lower percentile in either 2004 or 2010. In contrast, British penalties for low-earning men with large families increase in 2004, and again in 2010. The differences in magnitude between Models 1 and 2 also increase, suggesting larger penalties for low-earning British ethnic minorities with the largest families in 2010. Only British fathers at the 25^{th} percentile of earnings with two children in 2004 are predicted to receive any significant fatherhood premium.

These results confirm our second hypothesis that premia across the bottom half of partnered men's earnings distribution would decrease over time. Indeed, some low-earning partnered fathers in both countries are at risk of incurring penalties net of human capital, labor supply, and household specialization. The situation is worse in the United Kingdom, where predicted penalties since 2004 are greatest for the largest families and lowest-earning men.

[Insert Table 2 about here]

Changing premia among high-earning partnered men

In 1974, fatherhood premia for partnered British and U.S. men in the upper quartile of earnings are similar to or smaller than those for lower-earning men, with the possible exception of the

highest-earning British fathers with large families in Model 1. Once controlling for being White, in a professional occupation, and having a homemaker wife, the advantage for this group of men disappears. In that year, there are no measures of either education or work hours for the United Kingdom, which may increase the importance of the occupational control for this group. Otherwise, controlling for these characteristics does not significantly alter predicted premia among other high-earning men just as it did not alter premia among low-earning men in 1974.

High-earning British men with one child in 1974 are not predicted to receive any premium, whereas the highest-earning U.S. men with one child receive a premium less than half the size of that for the lowest-earning U.S. men. Similar to lower-earning men, high-earning British and U.S. men's premia for two children tend to be slightly larger than premia at other parities. The hypothesized 1974 premia equality between the most and least advantaged fathers ($90/10^{th}$ percentiles) is confirmed by *z*-tests (Table A-1). The lowest-earning British men with two children in 1974 have a significant premium advantage as compared with similar fathers in the 90^{th} percentile. The U.S. 90/10 *z*-test of differences for two children, and the British and U.S. 90/10 differences for three or more children are not statistically significant (Table A-1).

In 1986, premia among most high-earning fathers are smaller than in the prior decade, reflecting similar negative changes as found for low-earning fathers. British fathers in the 75^{th} percentile with three or more children face a significant penalty of 11 percent (Model 2), whereas their premia for one or two children are not statistically significant. The highest-earning British fathers have no significant premia at any parity. U.S. fathers in the 75^{th} percentile with one child face a significant penalty of about six percent, with premia for other parities substantively and statistically insignificant. Among the highest-earning U.S. men, only those with three or more children are predicted to receive a substantial premium of 12 percent (Model 1), although this

decreases in size and statistical significance once controlling for being White, in a professional occupation, and partnered with a homemaker wife (Model 2).

By 1994, premia patterns for high-earning fathers diverge from those for low-earning fathers. British and U.S. men in the upper quartile of earnings, in contrast to those in the bottom quartile, recoup significant premia for two children and the penalties for large families have abated. The large-family premium for U.S. men in the 90th percentile is slightly smaller than in 1986, but now statistically significant in both models because of the larger sample size. Things improve further for high-earning British and U.S. men in 2004. The premia for two children is even greater than in the prior decade, and all high-earning men with three or more children receive a premium. In the United Kingdom, the size of this large-family premium decreases substantially once controlling for being White, in a professional occupation, and having a homemaker wife. This suggests more advantaged high-earning British men tend to have the large families, in contrast to the lowest-earning British men with large families. The differences between the two models among high-earning U.S. men with three or more children are not significant. The 2004 patterns among the highest-earning fathers in both countries persist in 2010.

Figure 2 plots the 1974 versus 2010 fatherhood penalty or premium at each percentile for men with exactly two children to highlight the change over time. This illustrates the growing earnings disadvantage among low-earning fathers and increasing financial rewards to high-earning ones. *Z*-tests of changes in premia at each percentile between 1974 and 2010 confirm that the main story is one of low-earning fathers losing economic ground (Table A-1). The loss has been particularly acute for low-earning British fathers. Premia increases over time for fathers in the 90th earnings percentile with two or three or more children are significant only in the United States. The combined effect of losses and gains results in premia inequality to be greatest among

U.S. fathers. The U.S. 90/10 *z*-scores in 2010 are -4.6 for two and -4.7 for three children, as compared with -3.0 and -3.7, respectively, in the United Kingdom (Table A-1).

[Figure 2 about here]

DISCUSSION AND CONCLUSIONS

To date, the gendered institutional arrangements that structure parental stratification between men and women have proven to be poor predictors of stratification among fathers. We instead suggested a greater role for agency in explaining fatherhood premia, and posit that differences in premia among fathers reflect men's relative bargaining power with their employers. We further argued that the importance of individual bargaining power, and differences among men in it, increased steadily after the mid-1970s. Since then, structural changes in British and U.S. labor markets eroded protections and collective power for low-earning men and continue to increase the rewards for the highest-earning ones (Kalleberg 2010; Machin 2010; Mishel et al. 2012).

A comparison of the impact of one, two, and three or more children at different percentiles of partnered British and U.S. men's earnings distributions across the time period provided strong evidence that premia patterns among men follow the patterns of aggregate inequality. Premia for two children at the median of British and U.S. partnered men's earnings distributions were fairly stable across the period. But premia for the lowest-earning men decreased over time, with penalties for three or more children appearing by 1994. Low-earning U.S. fathers recouped some premia in 2004 and 2010, but penalties for low-earning British men with large families continued to increase, particularly in the wake of the 2008 economic crisis.

Given the increasing variety of family forms since the 1970s, some might question whether the erosion of protective labor market institutions is the source of growing economic

disadvantage among low-earning British and U.S. fathers. For example, the increase in divorce and nonmarital births has been greater among less-advantaged individuals (McLanahan 2004). We limited our comparisons to partnered men, but Killewald (2013) found that coresidential stepchildren predicted a wage penalty for their stepfathers. We cannot distinguish biological from stepchildren in the LIS data, so assessing the distribution of stepchild effects across the earnings distribution will need to be a topic of future research with suitable data. A further test of our argument would be to extend comparisons to countries that experienced similar demographic changes, but retained more of the labor market institutions that support greater wage equality.

The emerging penalties may reflect increasingly negative selection into fatherhood along the bottom half of the earnings distribution, which we could not control for with the data. When predicting fatherhood effects on average wages, existing research reported no selection effects among British fathers (Smith Koslowski 2011) and possibly decreasing negative selection among U.S. fathers (Lundberg and Rose 2002). Results here indicate future research should explore whether selection effects persist at other points in the earnings distribution. For example, if negative selection into fatherhood occurs among already low-earning men, controlling for it would reduce the fatherhood penalties found here.

Across the period, however, fatherhood premia for partnered men in the top quartile of earnings steadily increased as 90/50 income inequality steadily increased. So in contrast to the large penalty faced by low-earning men with large families in 2010, similar high-earning men were predicted to enjoy substantial premia. If selection effects do indeed differ across the earnings distribution, controlling for positive selection would reduce the large premia found here for high-earning men. To our knowledge, no one has ever assessed whether the direction of selection effects differs at different points in the earnings distribution.

We found little support for the arguments that household specialization or employment characteristics associated with hegemony explain fatherhood premia. Adding controls for homemaker wives, being White, and in a professional occupation rarely altered the size of the fatherhood premia predicted by the baseline model. The controls did alter premia for men with the largest families, but given the small size of this group and the large disparities in effects across the earnings distribution, the variables may be picking up some of the differential selection noted above. More generally, being White and in a professional occupation did predict higher earnings at all points of the distribution (results not shown), just not via the fatherhood premium. The direct impact of homemaker wives varied more across the earnings distribution, time, and the countries. A closer examination of the changing role of household de-specialization on partnered men's earnings is therefore a fruitful topic of future research. But the evidence here indicates these effects are not via the fatherhood premium. Gendered arrangements may entitle men to ask for fatherhood bonuses, but it is men's relative market advantage that predicts the relative size of the bonus.

We cannot preclude the role of employer discrimination in setting fatherhood premia and penalties, however, as some discrimination may affect the relative success of individual negotiations. Correll and her colleagues' (2007) experimental design was based on a fictitious midlevel marketing position paying between $135,000 and $180,000 a year (Correll et al. 2007: 1311), whereas the employer audit was limited to entry- and midlevel marketing and business job openings (2007: 1328). A void in the current literature would therefore be filled by assessing whether differences in employer callbacks to fathers and non-fathers remians negligible for a wider variety of skill or occupational levels.

Whatever their root cause, the changing patterns of British and U.S. fatherhood penalties and premia confirm McLanahan's (2004) concern for the increasingly divergent destinies of children predicted by parents' resources. Results here suggest her focus on women's education and risk of single motherhood are partial facets of this growing inequality. Almost 85 percent of children in post-industrial economies reside with two married or cohabiting parents, including 10 percent in step-families (OECD 2011: 28-30). The family-related penalties and premia reported here suggest that growing earnings inequality among partnered men may be the more critical source of growing economic disadvantage for subsequent generations in unregulated labor markets.

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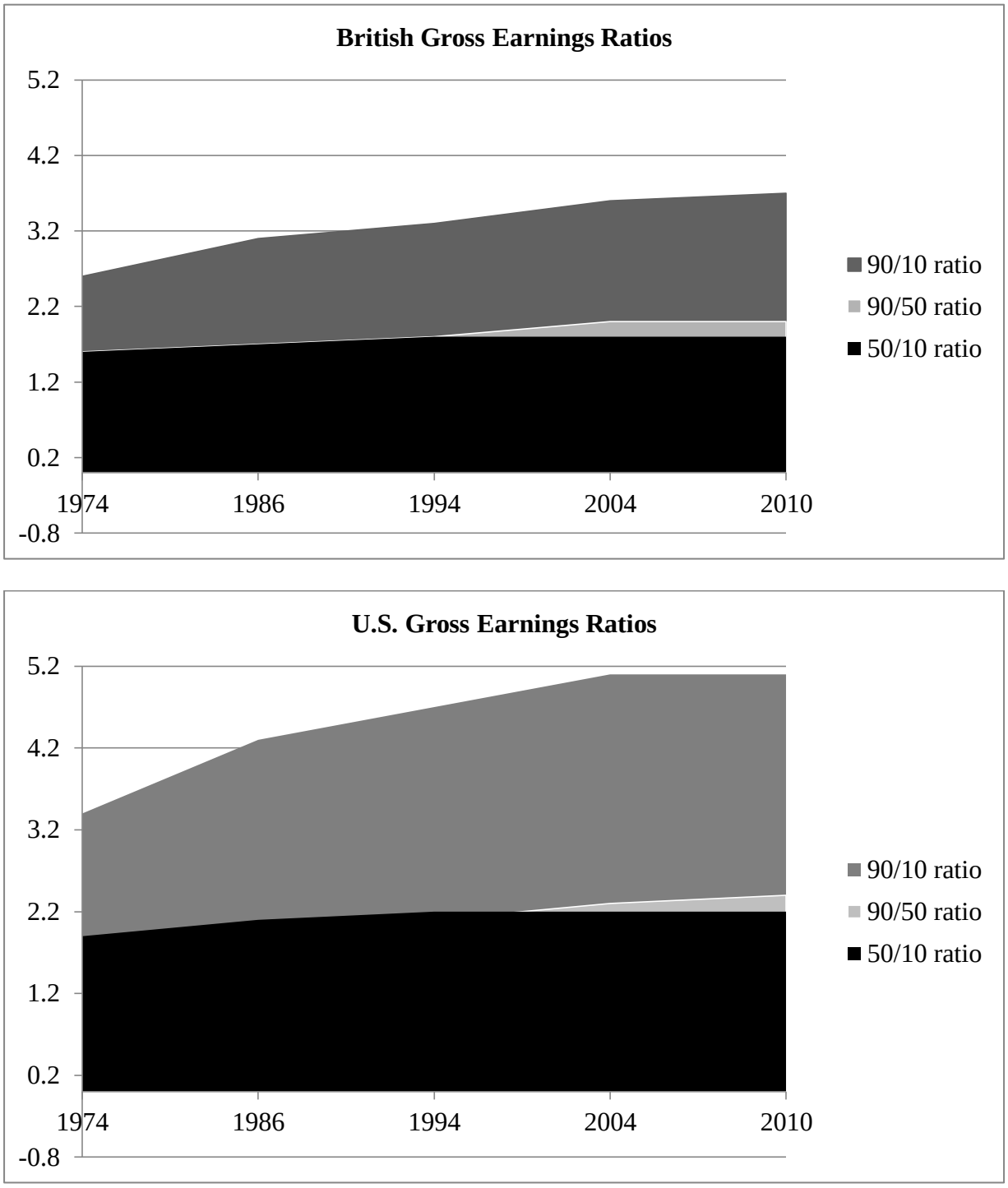
Figure 1 Relative gross earnings ratios, British and U.S. men, 1974-2010



Source: OECD Stats (http://stats.oecd.org/), accessed 10 February 2014.

Table 1 Weighted sample descriptive statistics, partnered men aged 25 to 59 years old not still in school, disabled or self-employed, earning more than US1974$1 (LIS data, multiple waves)

	UNITED KINGDOM					**UNITED STATES**				
	1974	**1986**	**1994**	**2004**	**2010**	**1974**	**1986**	**1994**	**2004**	**2010**
N	*2,876*	*2,251*	*6,665*	*7,885*	*6,696*	*4,630*	*3,968*	*18,240*	*26,472*	*22,895*
Annual earnings (1974$)	5,973 (3,113)	7,603 (4,016)	10,507 (9,373)	14,594 (16,493)	12,817 (12,792)	12,971 (6,955)	12,967 (8,496)	12,997 (9,755)	14,290 (14,287)	14,201 (15,145)
One child < 18	22	24	22	20	24	22	25	24	23	22
Two children < 18	27	27	27	23	25	25	25	27	25	23
Three + children < 18	19	12	10	8	7	23	14	14	14	13
University degree	-	14	15	27	31	21	31	31	33	37
Professional occupation	12	16	14	15	16	18	15	16	12	19
Caucasian	-	-	96	92	87	87	83	79	70	69
Unemployed spouse	44	45	28	23	20	31	33	27	20	21
Age	41.1 (10.0)	40.5 (9.2)	42.2 (9.1)	41.9 (9.3)	43.2 (9.1)	40.4 (10.1)	40.5 (9.6)	40.7 (9.0)	42.4 (9.4)	42.5 (9.5)
Age^{2}00	17.9 (8.4)	17.3 (7.7)	18.6 (7.7)	18.4 (7.9)	19.5 (7.8)	17.3 (8.4)	17.3 (8.1)	17.4 (7.5)	18.5 (7.9)	18.9 (8.1)
Usual weekly work hours	-	43.7 (8.6)	42.3 (8.7)	45.0 (10.4)	40.3 (9.3)	38.7 (15.9)	40.5 (16.8)	44.5 (8.6)	41.7 (13.4)	43.2 (9.0)
Usual weekly work hours^2	-	19.8 (8.3)	18.6 (8.2)	21.3 (10.3)	17.1 (8.0)	17.5 (10.2)	19.2 (11.9)	20.5 (8.3)	19.1 (10.1)	19.5 (8.6)

Table 2 Effect of fatherhood on partnered British and U.S. men's log gross annual wage distribution from nested RIF regression models

		UNITED KINGDOM									
		1974		1986		1994		2004		2010	
		Model 1	*Model 2*	*Model 1*	*Model 2*	*Model 1*	*Model 2*	*Model 1*	*Model 2*	*Model 1*	*Model 2*
N		*2,876*	*2,876*	*2,251*	*2,251*	*6,665*	*6,665*	*7,885*	*7,885*	*6,696*	*6,696*
10th p	One child	.07* (.03)	.08* (.03)	-.06 (.05)	-.05 (.05)	.04 (.03)	.05 (.03)	.01 (.03)	.02 (.03)	-.01 (.05)	.02 (.05)
	Two children	.09*** (.03)	.09** (.03)	.02 (.04)	.03 (.04)	.01 (.03)	.02 (.03)	-.02 (.03)	-.01 (.03)	-.13** (.05)	-.11* (.05)
	Three+ children	.01 (.04)	.02 (.04)	-.04 (.06)	-.02 (.06)	-.11** (.04)	-.08* (.03)	-.18*** (.04)	-.15*** (.04)	-.31*** (.08)	-.24** (.08)
25th p	One child	.07** (.02)	.08** (.03)	-.01 (.03)	-.02 (.03)	.02 (.02)	.02 (.02)	.01 (.02)	.02 (.02)	-.01 (.03)	.00 (.03)
	Two children	.09*** (.02)	.10*** (.02)	.03 (.03)	.02 (.03)	.03 (.02)	.03 (.02)	.04 (.02)	.05* (.02)	.01 (.03)	.02 (.03)
	Three+ children	.04 (.03)	.05 (.03)	-.03 (.04)	-.03 (.04)	-.08** (.03)	-.08** (.03)	-.07** (.03)	-.05 (.03)	-.16*** (.04)	-.13*** (.04)
50th p	One child	.04 (.02)	.04 (.02)	.01 (.03)	-.01 (.03)	.05** (.02)	.05** (.02)	.03 (.02)	.03 (.02)	.06* (.02)	.06** (.02)
	Two children	.07** (.02)	.07** (.02)	.10** (.03)	.09** (.03)	.07*** (.02)	.07*** (.02)	.07*** (.02)	.07*** (.02)	.09*** (.02)	.09*** (.02)
	Three+ children	.03 (.03)	.03 (.03)	.01 (.04)	-.00 (.04)	-.01 (.03)	-.01 (.03)	-.01 (.02)	-.01 (.03)	.01 (.03)	.01 (.03)

75th p	One child	.02 (.03)	.01 (.03)	.01 (.03)	-.00 (.03)	.03 (.02)	.03 (.02)	.03 (.02)	.03 (.02)	.04 (.03)	.03 (.03)
	Two children	.07** (.03)	.06* (.03)	.07 (.04)	.05 (.04)	.07*** (.02)	.06** (.02)	.11*** (.02)	.10*** (.02)	.09*** (.03)	.09** (.03)
	Three+ children	.06* (.03)	.05 (.03)	-.09* (.04)	-.11** (.04)	-.01 (.03)	-.02 (.03)	.08* (.03)	.04 (.03)	.10** (.03)	.08* (.03)
90th p	One child	-.03 (.04)	-.05 (.04)	-.02 (.04)	-.04 (.04)	-.01 (.03)	-.02 (.03)	.03 (.03)	.02 (.03)	-.00 (.04)	-.02 (.04)
	Two children	.03 (.04)	-.00 (.04)	.07 (.05)	.05 (.05)	.08* (.04)	.06 (.03)	.14*** (.03)	.12*** (.03)	.13** (.05)	.10* (.05)
	Three+ children	.10* (.05)	.07 (.05)	-.07 (.05)	-.08 (.06)	-.01 (.04)	-.04 (.04)	.21*** (.05)	.14** (.05)	.22*** (.07)	.15* (.07)

** p <= .05 ** p<=.01 *** p<=.001*

Both models control for university education, age, age-squared, usual weekly work hours, and usual weekly work hours squared, except UK1974, which has no education or work hours measures. Model 2 includes further controls for being in a professional or managerial occupation, whether respondent is Caucasian (except for UK1974 and UK1986, which have no ethnicity measures), and whether the man's female partner is out of the labor force.

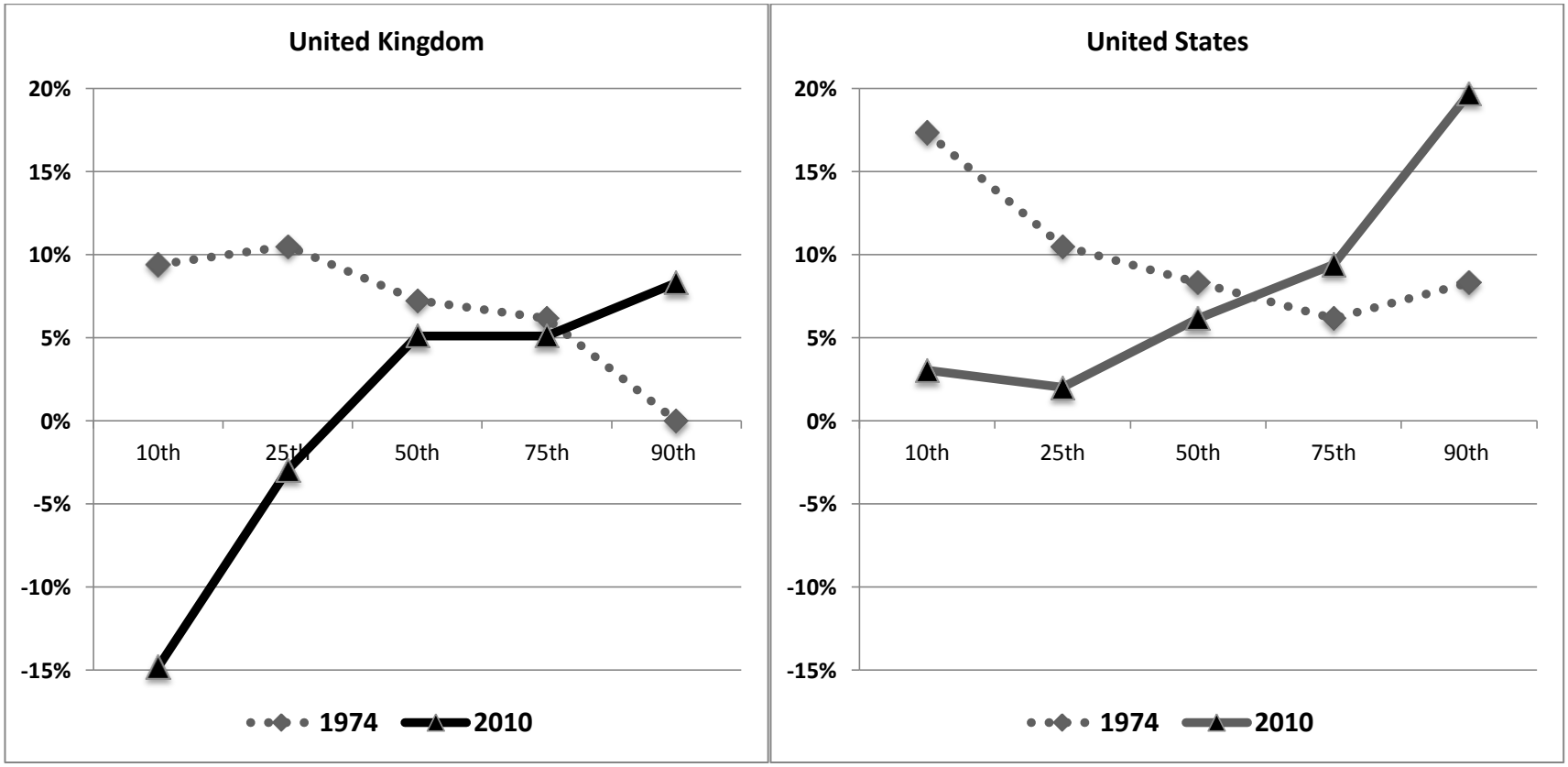
		UNITED STATES									
		1974		**1986**		**1994**		**2004**		**2010**	
		Model 1	*Model 2*	*Model 1*	*Model 2*	*Model 1*	*Model 2*	*Model 1*	*Model 2*	*Model 1*	*Model 2*
N		*4,630*	*4,630*	*3,968*	*3.968*	*18,240*	*18,240*	*26,472*	*26,472*	*22,895*	*22,895*
10th p	One child	.15* (.06)	.17** (.06)	-.01 (.08)	.02 (.08)	-.02 (.03)	.02 (.03)	08** (.03)	.07** (.03)	.04 (.02)	.03 (.02)
	Two children	.16* (.07)	.16* (.07)	.04 (.08)	.06 (.08)	-.06* (.03)	-.02 (.03)	.04 (.03)	.03 (.03)	.03 (.02)	.04 (.02)
	Three+ children	.03 (.07)	.07 (.07)	-.06 (.10)	-.01 (.10)	-.19*** (.04)	-.11** (.04)	-.09** (.03)	-.06 (.03)	-.09*** (.03)	-.06* (.03)
25th p	One child	.05 (.03)	.06 (.03)	-.05 (.04)	-.02 (.04)	-.09*** (.02)	-.06*** (.02)	.03 (.02)	.02 (.02)	.04** (.02)	.03* (.02)
	Two children	.10** (.03)	.10** (.03)	.02 (.04)	.06 (.04)	-.04* (.02)	-.01 (.02)	.04** (.02)	.03 (.02)	.03* (.02)	.03* (.02)
	Three+ children	.07* (.03)	.09** (.03)	-.09 (.05)	-.02 (.05)	-.15*** (.02)	-.08*** (.02)	-.06** (.02)	-.04 (.02)	-.08*** (.02)	-.05** (.02)
50th p	One child	.02 (.02)	.03 (.02)	-.04 (.03)	-.02 (.03)	-.04** (.01)	-.03 (.01)	.03** (.01)	.02 (.01)	.04** (.01)	.03* (.01)
	Two children	.09*** (.02)	.08*** (.02)	.04 (.03)	.04 (.03)	.01 (.01)	.03 (.01)	.08*** (.01)	.07*** (.01)	.08*** (.01)	.07*** (.01)
	Three+ children	.04* (.02)	.05* (.02)	-.03 (.04)	-.01 (.04)	-.06*** (.02)	-.03 (.02)	.01 (.01)	.02 (.01)	.01 (.01)	.02 (.01)
75th p	One child	.02 (.02)	.03 (.02)	-.07* (.03)	-.06* (.03)	-.02 (.01)	-.02 (.01)	.07*** (.01)	.06*** (.01)	.04** (.01)	.04** (.02)

	Two children	.07** (.02)	.06** (.02)	.01 (.03)	.01 (.03)	.04** (.01)	.03* (.01)	.13*** (.01)	.11*** (.01)	.11*** (.02)	.10*** (.02)
	Three+ children	.05* (.02)	.05* (.02)	.01 (.04)	.01 (.04)	.01 (.02)	.00 (.02)	.10*** (.02)	.10*** (.02)	.08*** (.02)	.08*** (.02)
90th p	One child	.07** (.03)	.07** (.03)	-.01 (.05)	-.00 (.04)	.00 (.02)	-.00 (.02)	.09*** (.02)	.08*** (.02)	.09*** (.02)	.09*** (.02)
	Two children	.09** (.03)	.08** (.03)	.01 (.05)	-.00 (.05)	.08*** (.02)	.07** (.02)	.14*** (.02)	.13*** (.02)	.18*** (.02)	.17*** (.02)
	Three+ children	.07* (.03)	.06* (.03)	.12* (.06)	.10 (.06)	.10*** (.03)	.07** (.03)	.17*** (.02)	.15*** (.02)	.17*** (.03)	.14*** (.03)

** p <= .05 ** p<=.01 *** p<=.001*

Both models control for university education, age, age-squared, usual weekly work hours, and usual weekly work hours squared, except UK1974, which has no education or work hours measures. Model 2 includes further controls for being in a professional or managerial occupation, whether respondent is Caucasian (except for UK1974 and UK1986, which have no ethnicity measures), and whether the man's female partner is out of the labor force.

Figure 2 Predicted effect of having exactly two children at different percentiles of the absolute earnings distribution, British and U.S. partnered men 1974 versus 2010



Appendix Table A-1 Z-tests of premia differences across percentiles and over time, two and three plus children

TWO CHILDREN

	UNITED KINGDOM					UNITED STATES				
	1974		2010		1974-2010 Change	1974		2010		1974-2010 Change
	b	*SE*	*b*	*SE*	*Z*	*b*	*SE*	*b*	*SE*	*Z*
10th p	0.09	0.03	-0.13	0.05	**3.77**	0.16	0.07	0.03	0.02	**1.79**
25th p	0.1	0.02	-0.03	0.03	**3.61**	0.1	0.03	0.02	0.02	**2.22**
50th p	0.07	0.02	0.05	0.03	0.55	0.08	0.02	0.06	0.01	0.89
75th p	0.06	0.03	0.05	0.03	0.24	0.06	0.02	0.09	0.02	-1.06
90th p	0	0.04	0.08	0.05	-1.25	0.08	0.03	0.18	0.02	**-2.77**
90/10 *z* score	**1.8**		**-2.97**			1.05		**-5.30**		

THREE PLUS CHILDREN

	UNITED KINGDOM					UNITED STATES				
	1974		2010		1974-2010 Change	1974		2010		1974-2010 Change
	b	*SE*	*b*	*SE*	*Z*	*b*	*SE*	*b*	*SE*	*Z*
10th p	0.02	0.04	-0.28	0.08	**3.35**	0.07	0.07	-0.04	0.03	-0.78
25th p	0.05	0.03	-0.14	0.04	**3.80**	0.09	0.03	-0.06	0.02	**4.16**
50th p	0.03	0.03	-0.01	0.03	0.94	0.05	0.02	0	0.02	**1.77**
75th p	0.05	0.03	0.06	0.04	-0.20	0.05	0.02	0.06	0.02	-0.35
90th p	0.07	0.05	0.18	0.07	-1.28	0.06	0.03	0.17	0.03	**-2.59**
90/10 *z* score	-0.78		**-4.33**			0.13		**-4.95**		

Notes: Coefficients are from Model 2 in Table 2. Scores in bold are statistically significant at $p < 0.05$, one-tailed test